STATE OF ALASKA
ALASKA OIL AND GAS CONSERVATION COMMISSION
333 West 7th Avenue, Suite 100
Anchorage, Alaska 99501

Re: THE REQUEST OF ENVIROTECH LLC for an Aquifer Exemption Order for their North Foreland Facility, Sec. 14, T11N, R11W, Seward Meridian, Cook Inlet Basin, Alaska.	)))))))	**Aquifer Exemption Order No. 10** **Shallow, Unconfined Aquifer at the Envirotech LLC North Foreland Facility** **October 6, 2004**

IT APPEARING THAT:

1. Rozak Engineering on behalf of Envirotech LLC ("Envirotech"), a subsidiary of Tyonek Native Corporation, submitted an application, dated March 15, 2004, requesting the Alaska Oil and Gas Conservation Commission ("Commission") issue an aquifer exemption beginning at the ground surface for purposes of Class II disposal of treated, produced water using a waste-water drain field installed at Envirotech's North Foreland Facility site.

2. Notice of opportunity for a public hearing was published in the Anchorage Daily News on April 21, 2004 in accordance with 20 AAC 25.540. A supplemental notice of public hearing was published in the Anchorage Daily News on April 23, 2004.

3. The Commission did not receive any protest or request for a public hearing.

4. The Commission has jurisdiction in this matter under AS 31.05.030(h), 20 AAC 25.440, and 40 CFR 147, Subpart C - Alaska.

5. Rozak Engineering provided copies of Envirotech's Aquifer Exemption application to the U.S. Environmental Protection Agency, Region 10, and to the Alaska Department of Environmental Conservation.

6. A public hearing was held at Commission request on June 10, 2004. The hearing record was held open until June 25, 2004 to accommodate submittal of additional information requested by the Commission and through several extensions the record remained open until it closed on September 1, 2004.

7. In response to Commission requests, Rozak Engineering and Envirotech submitted additional information on June 29, June 30, and August 30, 2004.

FINDINGS:

1. Location and Facility Description

Envirotech's North Foreland Facility ("Envirotech Facility") is located on the west side of the Cook Inlet, approximately 1-3/4 miles southwest of the village of Tyonek. Coordinates of the proposed disposal site are: 61° 02' 33.5" N and 151° 09' 50.6" W. This facility consists of several workshop and industrial structures that were utilized and then abandoned by a Japanese timber company in the 1980's. During 2002, Envirotech constructed a wastewater drain field consisting of three, 40-foot lengths of 4-inch diameter perforated pipe that are spaced 10 feet apart. These pipes lie five feet below ground surface, atop six feet of 3-inch minus drain rock. The drain rock is underlain by soil described as gravelly sand. This drain field lies approximately 14 feet above the unconfined ground water aquifer, and about 500 to 600 feet from the western shoreline of the Cook Inlet.

The nearest oil or gas well is Moquawkie #44-8, which is three miles to the northwest of the Envirotech Facility. There are no water supply wells within one-quarter mile of the drain field. The nearest water well listed in the Alaska Department of Natural Resources' Water Resource database lies 4 miles to the northeast. The village of Tyonek, located 1-3/4 miles to the northeast, obtains drinking water from an inland lake. There is a shallow well at the Envirotech Facility that is estimated to be 25 to 30 feet deep, and is equipped with a submersible pump. The water from this well is not used as drinking water.

2. Geology and Ground water Hydrology

The Envirotech Facility is situated on an alluvial terrace composed of unconsolidated glacial soils that are classified by the US Department of Agriculture's Natural Resources Conservation Service as being part of the Nancy-Kashwitna Complex. These soils were deposited over a thick sequence of Tertiary-aged, coal-bearing rocks. The ground surface at the project site slopes gently southeast, toward the Cook Inlet. Ground water is expected to flow to the southeast from the drain field toward the Cook Inlet, parallel with the surface gradient.

There are no well logs or soil descriptions for the shallow geologic section in the vicinity of the project area. An experienced drilling contractor suggests that a dense silt layer may occur between 30 and 75 feet below ground surface, but until monitor wells are drilled, the Commission has no direct evidence to support the existence of this layer beneath the project site.

Topographic maps indicate the closest approach of nearby Tyonek Creek to the drain field is about 900 feet to the southwest. This point of closest approach lies at about the same elevation as the drain field, and it occurs at a location where the creek channel makes an abrupt course change toward the southwest, away from the drain field.

3. Formation Water Salinity

Petrophysical logs, soil descriptions, or drilling records are not available for the shallow, non-potable water well at the Envirotech Facility. Envirotech collected water samples from Cook Inlet, from the shallow water well, and from nearby Tyonek Creek. A commercial laboratory analyzed these samples for total dissolved solids ("TDS") and chlorides using EPA-approved methods. The analytical results are:

Sample Site	TDS (mg/l)	Chlorides (mg/l)
Cook Inlet	17,000	9,740
Shallow well	3,300	1,710
Tyonek Creek	1,500	868

4. Applicable Regulations

Regulations 20 AAC 25.440 (a)(1)(B) and (a)(2) provide that the AOGCC can grant a fresh water aquifer exemption if "the total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l, and it is not reasonably expected to supply a public water system."

5. Subsurface Ownership

The subsurface at the Envirotech Facility is owned by Cook Inlet Region Inc. ("CIRI"). A letter of formal agreement between Envirotech and CIRI stating that CIRI has no objections to this disposal project was provided to the Commission by Envirotech on August 30, 2004.

CONCLUSIONS:

1. The shallow aquifer occurring below the ground surface at the Envirotech Facility does not currently serve as a source of drinking water
2. The formation waters of the shallow, unconfined aquifer are more than 3,000 ppm TDS in the vicinity of the shallow well near the Envirotech facility.
3. The shallow aquifer occurring below the ground surface within the unconsolidated glacial soils and lying within a one-quarter mile radius of the existing Envirotech Facility drain field cannot reasonably be expected to supply a public water system.
4. The shallow aquifer occurring below the ground surface and within one-quarter mile radius of the Envirotech Facility drain field qualifies as exempt fresh water aquifer under 20 AAC 25.440(a)(2).

NOW, THEREFORE, IT IS ORDERED THAT

The aquifer occurring between the ground surface and the base of the near-surface, unconsolidated glacial soils within a one-quarter mile radius of the existing Envirotech Facility drain field is exempt under 20 AAC 25.440.

DONE at Anchorage, Alaska, and dated October 6, 2004.

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John K. Norman, Chairman
Alaska Oil and Gas Conservation Commission

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Daniel T. Seamount, Jr., Commissioner
Alaska Oil and Gas Conservation Commission

AS 31.05.080 provides that within 20 days after receipt of written notice of the entry of an order, a person affected by it may file with the Commission an application for rehearing. A request for rehearing must be received by 4:30 PM on the 23rd day following the date of the order, or next working day if a holiday or weekend, to be timely filed. The Commission shall grant or refuse the application in whole or in part within 10 days. The Commission can refuse an application by not acting on it within the 10-day period. An affected person has 30 days from the date the Commission refuses the application or mails (or otherwise distributes) an order upon rehearing, both being the final order of the Commission, to appeal the decision to Superior Court. Where a request for rehearing is denied by nonaction of the Commission, the 30-day period for appeal to Superior Court runs from the date on which the request is deemed denied (i.e., 10th day after the application for rehearing was filed).